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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,532	07/10/2006	Ippei Shake	14321.87	4422
22913	7590	06/22/2009	EXAMINER	
Workman Nydegger 1000 Eagle Gate Tower 60 East South Temple Salt Lake City, UT 84111			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2613	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,532	Applicant(s) SHAKE ET AL.	
	Examiner Dzung D. Tran	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8-10 and 15 is/are rejected.
- 7) ☒ Claim(s) 3,6,7,11-14 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-5, 8-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanishshi et al. "Simple Q factor monitoring for BER estimation using opened eye diagrams captured by high speed asynchronous electro-optical sampling"; IEEE photonics technology letter, Vol. 15, No. 4, April 2003 in view of Kikuchi US 2007/0065162 and Torii et al. US 2004/0190899.

Regarding claims 1 and 15, Kawanishshi discloses an apparatus/method of an optical signal quality monitoring circuit comprising:

photoelectric conversion means (i.e., O/E conversion) for converting an input optical signal to an electrical signal;

sampling means (i.e., EO sampling) for sampling and converting the electrical signal with any given repetition frequency f_1 to digital sampling data by an analog to digital conversion; and

signal processing means (i.e., signal processing circuit of Figure 1) for correcting and evaluating optical an signal quality parameter of the optical signal according to a

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change in the signal bit rate of the optical signal by using the sampling data (page 620).

Kawanishshi does not specifically disclose sampling circuit is an analog to digital conversion for converting the electrical signal.

Kikuchi, from the same field of endeavor, discloses an optical signal quality monitoring circuit comprises a sampling circuit is an analog to digital conversion (i.e., A/D converter 107; see abstract) wherein the signal processing means corrects the optical signal quality parameter of the optical signal on the basis of the received signal bit rate information (paragraph 0069). Since the sampling circuit includes an analog to digital conversion is well known, at the time of the invention was made, it would have been obvious to an artisan that the sampling means (i.e., EO sampling) of Kawanishshi also include the analog to digital conversion (i.e., A/D converter). Furthermore, Torii discloses in Figures 1, 9, 11, 12, paragraphs 0083-0085, a controller for correcting and evaluating optical an signal quality parameter of the optical signal according to a change in the signal bit rate of the optical signal by using the sampling data.

Regarding claim 2, Kikuchi discloses signal bit rate information receiving means for receiving signal bit rate information of the optical signal, wherein the signal processing means corrects the optical signal quality parameter of the optical signal on the basis of the received signal bit rate information (paragraph 0069).

Regarding claims 4 and 5, Kikuchi discloses wherein the signal processing means periodically changes a correction value of optical signal quality parameter corresponding to individually different signal bit rates and evaluates the optical signal

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quality parameters of the optical signal and bit rate detection means for detecting a signal bit rate of the

optical signal by using the electrical signal, wherein the signal processing means corrects the optical signal quality parameter of the optical signal on the basis of the detected signal bit rate (abstract, paragraph 0069).

. Regarding claim 8, Kawanishshi discloses wherein the photoelectric conversion means is provided with an optical electrical converter which converts the optical signal of repetition frequency f_0 to an electrical signal (Figure 1; page 620).

Regarding claim 9, Kawanishshi discloses wherein the photoelectric conversion means comprises:

an optical electrical sampling circuit which samples an optical signal of bit rate f_0 by using an electrical pulse synchronized with a clock of repetition frequency f_1 to output a sampling optical signal and an optical electrical converter for converting the sampling optical signal to an electrical signal (Figure 1; page 620).

Regarding claim 10, Kawanishshi discloses wherein the photoelectric conversion means comprises:

an optical-optical sampling circuit which samples an optical signal of bit rate f_0 by using an optical pulse synchronized with a clock of repetition frequency f_1 to output the sampling optical signal and an optical electrical converter for converting the sampling optical signal to an electrical signal (Figure 1; page 620).

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3. Claims 3, 6-7, 11-14 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Bischoff U.S. Patent no. 6,836,620. Method for monitoring the signal quality in transparent optical networks

b. Audouin et al. U.S. Publication no. 2003/0117613. Method of measuring the error rate of an optical transmission system and apparatus for implementing the method

c. Shake et al. U.S. Publication no. 2003/0011837. Method and system for determining origin of optical signal quality degradation

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vanderpuye Kenneth, can be reached on (571) 272-3078. The fax phone

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number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran

06/10/2009

/Dzung D Tran/

Primary Examiner, Art Unit 2613